APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/476,303	12/30/1999	GILBERT WOLRICH	10559/133001	7635

20985 7590 08/12/2004	EXAMINER	
FISH & RICHARDSON, PC	THOMPSON, MARC D	
12390 EL CAMINO REAL		
SAN DIEGO, CA 92130-2081	ART UNIT	PAPER NUMBER
	2144	

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/476,303	WOLRICH ET AL.
	Examiner	Art Unit	
	Marc D. Thompson	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 July 2004</u> .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) <u>19</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-18 and 20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>6/18/2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>7/2&5/27</u> .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/27/2004 has been entered.

2.   Claim 19 remains withdrawn from consideration. This claim is directed to a different invention than the elected group currently undergoing examination. Cancellation of this claim will be required should the current claims be found to contain allowable subject matter. It is suggested this claim be canceled promptly, to obviate any confusion relating to its' status.

3.   Claims 1-20 are currently pending.

Priority

4.   No claim for priority has been made in this application.

5.   The effective filing date for the subject matter defined in the pending claims in this application is 12/30/1999.

Drawings

6.   The Examiner contends that the drawings submitted on 6/18/2003 are acceptable for examination proceedings.

Specification

7.   The title of the invention is not commensurate with the claimed invention, that is, the title is not descriptive of the claimed invention. A new title is required that is clearly indicative of the invention to which the claims are directed.

Information disclosure statements

8.   The information disclosure statements filed on 5/27/2004 and 7/2/2004 are identical. Only the former has been initialed by Examiner, wherein the latter has had each entry "lined through" in accordance with MPEP § 609.

9.   Both copies of the submitted IDS documents reference the current application (09/476,303), and mislabel another application, namely, 10/449,079. Both these entries are stricken from the list of considered references.

10.   It should be noted that the Applicant has submitted an exorbitant amount of prior art which on initial consideration appears to not all have relevancy or pertinence to the instant invention as claimed. Applicant is requested in response to this office action to point out which of these numerous prior art are pertinent or relevant to the patentability of the invention as claimed in this instant application. It should also be noted that it would be advantageous to Applicant to provide a concise explanation of why each of the prior art is being submitted and how it is understood to be relevant. "Concise explanations are helpful to the Office, particularly where documents are lengthy and complex and applicant is aware of a section that is highly relevant to patentability or where a large number of documents are submitted and applicant is

aware that one or more are highly relevant to patentability." (See MPEP § 609 under subheading

"A. CONTENT").

11.   Applicant is also requested to respond to this action with any particular knowledge of

which co-pending or issued patent applications share similar claimed subject matter to the

present application, so any further issues relating to double patenting may be easily ascertained.

Double Patenting

12.   The nonstatutory double patenting rejection is based on a judicially created doctrine
grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or
improper timewise extension of the "right to exclude" granted by a patent and to prevent possible
harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed.
Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686
F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA
1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).
     A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to
overcome an actual or provisional rejection based on a nonstatutory double patenting ground
provided the conflicting application or patent is shown to be commonly owned with this
application. See 37 CFR 1.130(b).
     Effective January 1, 1994, a registered attorney or agent of record may sign a terminal
disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37
CFR 3.73(b).

13.   Claims 1-18, and 20 are rejected under the judicially created doctrine of obviousness-type

double patenting as being unpatentable over claims 1-27 of U.S. Patent Number 6,661,794, and

claims 1-16 of U.S. Patent Number 6,625,654.

14.   Although the conflicting claims are not identical, they are not patentably distinct from

each other because the current breadth and content of the current claims were disclosed in each

of these prior patent documents. The provision of scheduling thread(s), the selection of thread(s)

available to "service" the port(s), the subsequent assignment of the port to a suitable thread, and

the subsequent reuse of the port and process threads to continue information processing was

directly claimed in both these applications. Any difference between selective patented claims in both these documents and the currently presented claims are minimal, and constitute an obvious variation of the patented method(s), since no additional structural or functional difference is evident.

15.   Claims 1-18, and 20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 24-36 of copending Application Number 10/726,757, claims 1-25 of copending Application Number 10/684,078, claims 1-12 of copending Application Number 10/643,438, claims 1-28 of copending Application Number 10/615,280, and claims 1-25 of copending Application Number 09/475,614. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the same reasons detailed above. The differences between selective claims of these cited application and the present application claims are minimal, and do not constitute patentable differences due to the absence of, or obvious nature of any isolated potential differences.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

16.   Given the breadth of the currently presented claims, Applicant is requested to identify other co-assigned patents and patent applications which may give rise to further double patenting rejections.

Claim Rejections - 35 USC § 112

17.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

18.   Claims 1-18, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

19.   All the presented claims recite "determining that one of the plurality of ports needs service". The metes and bounds of this portion of the claim cannot be easily ascertained. Given the breadth of the plain meaning of the term "port" (e.g., connection hole, logical handle for data flow, etc.", and no readily available qualified meaning for the term "service", the claim in indefinite. Without qualification of what these terms describe, clarity of the claimed invention is absent. This limitation will be treated broadly, and is understood to recite nothing more than a determination that there is incoming data on a particular data flow (physical/logical connection) which is to be processed in one fashion of another. Indeed, this assumed functionality is still missing from the claims, even after Examiner noted this deficiency in prior action(s).

20.   In short, the claims remain overly broad. The breadth and shifting of the claimed invention is resulting in interpretation which hinders prosecution. Applicant is advised to (1) refer back to prior discussions between Examiner and Applicant, on the record, for ways to clarify the claimed invention, and (2) fill in the current "skeleton" of a claim with sufficient details serving to fully describe and qualify the invention as enabled in the specification. Applicant is charged with "particularly pointing out and distinctly claiming" the invention.

Claim Rejections - 35 USC § 102

21.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)):

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

22.   Claims 1-18, and 20 are rejected under 35 U.S.C. §102(b) as being anticipated by Yasrebi

(U.S. Patent Number 5,463,625), hereinafter referred to as Yasrebi '625, or alternatively, under

35 U.S.C. §102(e) as being anticipated by Yasrebi (U.S. Patent Number 6,141,689), hereinafter

referred to as Yasrebi '689.

23.   It is noted that Yasrebi '625 fully incorporates by reference Yasrebi '689, and vice-versa.

See Yasrebi '625, Column 9, Lines 63-67, and Yasrebi '689, Column 3, Lines 18-29. This

combination of references will be treated as a single, combined document.

24.   Yasrebi disclosed methodology mapping physical and/or logical ports with particular

processes and/or threads. See Yesrebi '625, inter alia, Column 8, Lines 5-12, and Yasrebi '689,

Figure 2. The control threads as disclosed, inter alia, in Yasrebi '625, Yasrebi '625 in Column 8,

Lines 20 through Column 9, Line 54, schedule processing of incoming data from the ports.

25.   These claims were fully disclosed by the teachings of Yasrebi as follows:

(claim 1, 13)

    1. *scheduling processing of data received at a plurality of ports, performed by a plurality of*

processing threads, was taught by Yasrebi '625 in Column 8, Line 30, and Yasrebi '689, inter

alia, in Column 12, Lines 26-30.

2. *determining that one of the plurality of ports needs service,* was taught by Yasrebi '689, inter alia, in Column 11, Lines 13-16. If the port was not "idle" and/or the port was currently active in a communication, data was determined to be forthcoming, and thus, "required service".

3. *selecting one of the plurality of processing threads that is available to service the port,* was taught by Yasrebi '689 in Column 7, Lines 51-58, and Column 10, Lines 45-51.

4. *assigning the port to the processing thread,* was taught by Yasrebi '625 in Column 8, Lines 20 through Column 9, Line 54, and Yesrabi '689, inter alia, in Column 9, Lines 5-10, or Column 11, Lines 1-9.

5. *awaiting notification by the processing thread that processing of data received at the assigned port has been completed prior to unblocking the port and re-assigning the port to one of the plurality of processes,* was taught by Yasrebi '689 in Column 10, Lines 24-30. Every port communication was timed between PortOpen and PortClose function calls (i.e., active), and each port was assigned in response to call/RPC initiation. Thus, a "session", call, or RPC termination or "sharing" (port sharing, as disclosed by Yasrebi '689 was optional functionality in Column 11, Lines 26-36) was required prior to reassignment of the port to a thread or process. Without multiplexing (more optional functionality), only one thread may use any particular port. See Yasrebi '689, inter alia, Column 10, Lines 45-63, and Column 12, Lines 31-37.

(claim 2, 14)

6. *determining whether data is available at one of the ports,* was taught by Yasrebi '689, inter alia, in Column 11, Lines 10-21. The provision for "marking" ports as "idle" fully meets this claim limitation.

(claim 15, 20)

7. *scheduling is performed by a scheduling thread that executes in parallel to the processing threads*, was taught, inter alia, by Yasrebi '625 in Column 8, Lines 20 through Column 9, Line 54, and Yesrabi '689, inter alia, in Column 9, Lines 5-10, or Column 11, Lines 1-9. Also see, Yasrebi '689, Column 7, Lines 55-56, and Column 10, Line 38 through Column 11, Line 9.

(claim 3)

8. *selecting one of the plurality of processes using the scheduler thread*, was taught, inter alia, by Yasrebi '625 in Column 8, Lines 20 through Column 9, Line 54, and Yesrabi '689, inter alia, in Column 9, Lines 5-10, or Column 11, Lines 1-9. Also see, Yasrebi '689, Column 7, Lines 55-56, and Column 10, Line 38 through Column 11, Line 9.

(claim 4)

9. *directing transfer of the data from the assigned port to the one of the plurality of processes for processing*, was taught by Yasrebi '689, inter alia, in Figure 2. Each thread of each process used a port as a conduit of for communication uniquely; each arbitrary thread within a process used only one port for bi-directional communication. Additionally, the gateway provided this express functionality. See Column 5, Lines 35-38, and Column 10, Lines 17-23.

(claim 5, 16)

10. *determining if any of the plurality of processes is available to process the data*, was taught by Yasrebi '689 in Column 7, Lines 51-58, and Column 10, Line 38 through Column 11, Line 16.

11. *[selecting] an available process [for subsequent assumed processing]*, was taught by Yasrebi '689 in Column 7, Lines 55-56, and Column 10, Line 38 through Column 11, Line 9.

(claim 6, 17)

12. *recording the port-to-process assignment on an assignment list,* was taught by

Yasrebi '689 in Column 12, Lines 6-8.

(claim 7, 18)

13. *removing the port-to-process assignment from the assignment list upon receiving*

notification that the processing has been completed, was taught by Yasrebi '689 in Column 12,

Lines 6-8.

(claim 8, 9, 10)

14. *data comprises [at least a portion of] network packet data,* was taught by Yasrebi '689 in

Column 7, Lines 65-66.

(claim 11, 12)

15. *network packet comprises an Ethernet packet, [and] one of the plurality of ports is an []*

Ethernet port, was taught by Yasrebi '689 in Column 7, Lines 65-66, and Column 8, Lines 31-36.

26.   Since all the claimed limitations were explicitly set forth by the teachings of Yasrebi,

claims 1-18, and 20 are rejected.

27.   Claims 1-18, and 20 are rejected under 35 U.S.C. §102(b) as being anticipated by

Heimsoth et al. (U.S. Patent Number 5,764,915), hereinafter referred to as Heimsoth.

28.   Heimsoth disclosed a system and method for effecting end node communications in a

networking environment using arbitrary protocol stack assembly. See, inter alia, Column 2,

Lines 41-60. Heimsoth fully disclosed the tuning of server performance using execution thread

management. See, inter alia, Column 15, Lines 2-9. The (pre) presence of server threads

processing logical port traffic was disclosed. See, inter alia, Column 21, Lines 11-14, and

Column 23, Lines 8-30. Lastly, the scheduling of thread execution was disclosed, inter alia, in

Column 21, Lines 33-44, and Columns 22-30.

29.   Heimsoth disclosed the invention as broadly claimed as follows:

(claim 1, 13)

1. *scheduling processing of data received at a plurality of ports, performed by a plurality of*

processing threads, was taught by Heimsoth, inter alia, in Column 21, Lines 45-65.

2. *determining that one of the plurality of ports needs service,* was taught by Heimsoth, inter

alia, in Column 23, Lines 3-5.

3. *selecting one of the plurality of processing threads that is available to service the port,*

was taught by Heimsoth, inter alia, in Column 23, Lines 5-7.

4. *assigning the port to the processing thread,* was taught by Heimsoth, inter alia, in

Column 23, Lines 5-7.

5. *awaiting notification by the processing thread that processing of data received at the*

assigned port has been completed prior to unblocking the port and re-assigning the port to one

of the plurality of processes, was taught by Heimsoth, inter alia, in Column 24, Lines 31-34.

(claim 2, 14)

6. *determining whether data is available at one of the ports,* was taught by Heimsoth, inter

alia, in Column 24, Lines 21-30.

(claim 15, 20)

7. *scheduling is performed by a scheduling thread that executes in parallel to the processing threads*, was taught by Heimsoth, inter alia, in Column 25, Lines 13-30.

(claim 3)

8. *selecting one of the plurality of processes using the scheduler thread*, was taught by Heimsoth, inter alia, in Column 24, Lines 37-49.

(claim 4)

9. *directing transfer of the data from the assigned port to the one of the plurality of processes for processing*, was taught by Heimsoth, inter alia, in Column 22, Lines 46-60.

(claim 5, 16)

10. *determining if any of the plurality of processes is available to process the data*, was taught by Heimsoth, inter alia, in Column 24, Lines 21-36.

11. *[selecting] an available process [for subsequent assumed processing]*, was taught by Heimsoth, inter alia, in Column 23, Lines 5-7.

(claim 6, 17)

12. *recording the port-to-process assignment on an assignment list*, was taught by Heimsoth, inter alia, in Column 24, Lines 37-49

(claim 7, 18)

13. *removing the port-to-process assignment from the assignment list upon receiving notification that the processing has been completed*, was taught by Heimsoth, inter alia, in Column 24, Lines 31-36.

(claim 8, 9, 10)

14. *data comprises [at least a portion of] network packet data*, is inherent, since the

information has been transferred via a packet switched/data framing network.

(claim 11, 12)

15. *network packet comprises an Ethernet packet, [and] one of the plurality of ports is an []*

Ethernet port, was taught by Heimsoth, inter alia, in Column 8, Lines 25-30.

30.   Heimsoth disclosed all the limitations of the broadly presented invention. Claims 1-18,

and 20 are rejected.

Response to Arguments

31.   The arguments presented by Applicant in the response, received 5/27/2004, are not

considered persuasive.

32.   Applicant asserts the prior art did not expressly provide the selection of a processing

thread available to service a port. This line of reasoning is unclear, since Applicant follows with

explanation of Yasrebi (previously applied art), "initiating a remote procedure call (RPC)", and

detailing that "an idle port is bound to the RPC to allow the RPC to receive input from the

port…" First, this clearly provided the selection of a RPC to communicate with an arbitrary

"port". If the RPC is using the port to receive (or output) data, the "port" is not idle at the time

of binding, but this does not mean the port is idle.

33.   Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a

general allegation that the claims define a patentable invention without specifically pointing out

how the language of the claims patentably distinguishes them from the references.

34.   Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly

point out the patentable novelty which he or she thinks the claims present in view of the state of

the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

35.   As previously reported, the breadth of the claims remain broad enough to construe multiple other embodiments of the prior art as a whole, and Applicant has been fore-warned of the Examiner's position on this matter, and fails to address it properly. Applicant has now had multiple opportunities to amend the claimed subject matter, and has failed to modify the claim language to distinguish over the prior art of record by clarifying or substantially narrowing the claim language. Thus, Applicant apparently intends that a broad interpretation be given to the claims and the Examiner has adopted such in the present and previous Office action rejections. See *In re Prater and Wei*, 162 USPQ 541 (CCPA 1969), and MPEP § 2111. Further, Applicant employs broad language which includes the use of words and phrases which have broad meanings in the art. In addition, Applicant has not argued any narrower interpretation of the claim language, nor amended the claims significantly enough to construe a narrower meaning to the limitations. As the claims breadth allows multiple interpretations and meanings which are broader than Applicant's disclosure, the Examiner is forced to interpret the claim limitations as broadly as reasonably possible, in determining patentability of the disclosed invention. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). As the claims breadth allows multiple interpretations and meanings which are broader than Applicant's disclosure, the Examiner is forced to interpret the claim limitations as broadly as reasonably possible, in determining patentability of the disclosed invention. Thus, Applicant apparently intends that a broad interpretation be given to the claims and the Examiner has

adopted such in the present Office action rejection(s). See *In re Prater and Wei*, 162 USPQ 541

(CCPA 1969), and MPEP § 2111.

Conclusion

36.   Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Marc Thompson whose telephone number is (703) 308-6750.

The Examiner can normally be reached on Monday-Friday from 9am to 4pm. If attempts to

reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Jack Harvey, can

be reached at (703) 305-9705. The fax phone number for this Group is (703) 872-9306.

Inquiries of a general nature relating to the general status of this application or proceeding should

be directed to the 2100 Group receptionist whose telephone number is (703) 305-3900.

MARC D. THOMPSON

MARC THOMPSON

PRIMARY EXAMINER

Marc D. Thompson
Primary Examiner
Art Unit 2144